IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A display device for displaying a three dimensional image such that different views are displayed according to different viewing angles, the display device including:

a display panel having a plurality of separately addressable pixels for displaying said image, the pixels being grouped such that different pixels in a group correspond to different views of the image as a function of an angle with respect to a first axis, each pixel in a group being positioned relative to a respective discrete light source;

a display driver for controlling an optical characteristic of each pixel to generate an image according to received image data; and

an intensity compensation device for further controlling light transmission characteristics of pixels within a group to compensate for an angular size of view, of the respective light source, via said pixels in a second axis of the display panel, wherein the second axis is transverse to the first axis.

2. (Previously Presented) The display device of claim 1 further including a back panel for providing a plurality of discrete light sources, each group of pixels in the display panel being positioned to receive light from a respective one of the discrete light sources.

3. (Previously Presented) The display device of claim 2 in which the back panel provides a plurality of line sources of illumination.

4. (Previously Presented) The display device of claim 2 in which the back panel provides a plurality of point sources of illumination.

5. (Previously Presented) The display device of claim 2 in which the display panel is a light-transmissive display panel adapted for viewing from a side opposite to a side on which the back panel is located.

6. (Previously Presented) The display device of claim 1 further including a lenticular array positioned adjacent to the display panel, each lenticle within the lenticular array focusing light from selected pixels in the display panel.

7. (Previously Presented) The display device of claim 6 in which each lenticle within the lenticular array is associated with a group of pixels.

8. (Previously Presented) The display device of claim 1 in which the display driver and intensity compensation device in combination are adapted to control the amount of light passing through each pixel according to an image to be displayed.

9. (Previously Presented) The display device of claim 1 in which the intensity compensation device comprises a look-up table containing correction values to be applied in respect of each pixel within a group.

10. (Original) The display device of claim 9 in which the correction values are selected so as to substantially normalise an intensity displayed by a group of pixels to be independent of viewing angle.

11. (Original) The display device of claim 9 in which the look-up table includes substitution values or offset values as a function of viewing angle to be applied to a frame store.

12. (Previously Presented) The display device of claim 1 in which the intensity compensation device is adapted to adjust a pixel drive voltage and/or current received from the display driver.

13. (Original) The display device of claim 12 in which the intensity compensation device provides a voltage and/or current offset to the pixel drive voltage and/or current received from the display driver.

14. (Previously Presented) The display device of claim 1 in which the intensity compensation device is adapted to further control optical characteristic of pixels within a group as a function of a linear viewing angle dimension of each pixel.

15. (Previously Presented) The display device of claim 1 in which the intensity compensation device is adapted to further control optical characteristic of pixels within a group as a function of an areal viewing angle dimension of each pixel.

16. (Previously Presented) The display device of claim 1 in which the intensity compensation device is adapted to further control optical characteristic of pixels within a group as a function of the angle subtended by a linear dimension of a pixel relative to its respective discrete light source.

17. (Previously Presented) The display device of claim 1 in which the intensity compensation device is adapted to further control optical characteristic of pixels within a group as a function of the angle subtended by an areal dimension of a pixel relative to its respective discrete light source.

18. (Previously Presented) The display device of claim 1 in which the intensity compensation device is adapted to further control optical characteristic of pixels within a group to modulate the optical transmissivity of each pixel according to the function:

$$\arctan\{[(N + 0.5)p_0 + 0.5 * w] / h\} - \arctan\{[(N - 0.5)p_0 - 0.5 * w] / h\}$$
$$\arctan\{[(n + 0.5)p_0 + 0.5 * w] / h\} - \arctan\{[(n - 0.5)p_0 - 0.5 * w] / h\}$$

where the group of pixels comprises (2N + 1) pixels, n is the pixel position from the centre of the group of (2N + 1) pixels, p_0 is the pixel width, w is the width of the discrete light source, and h is the orthogonal separation of the light source to the plane of the group of pixels.

19. (Currently Amended) The display device of claim 1 in which inherent optical characteristics of the display panel are configured such that viewing angle dependence is reduced

or substantially minimised relative to the first axis which is a y-axis ~~and the intensity compensation device serves to reduce or substantially minimise viewing angle dependence relative to an axis that is transverse to the y-axis~~.

20. (Currently Amended) The display device of claim 19 in which the intensity compensation device serves to reduce or substantially minimise viewing angle dependence relative to the second [[an]] axis which is a x-axis, wherein the second axis [[that]] is orthogonal to the y-axis ~~(i.e. the x-axis)~~.

21. (Original) The display device of claim 20 incorporated into an object, in which the x-axis is defined as the horizontal axis when the object is in normal use, and the y-axis is defined as the vertical axis when the object is in normal use.

22. (Currently Amended) A method for displaying a three dimensional image on a display device such that different views of the image are displayed according to different viewing angles, the method comprising the steps of:

processing image data to form pixel intensity data values for each one of a plurality of separately addressable pixels in a display panel, the pixels being grouped such that different pixels in a group correspond to different views of the image as a function of an angle with respect to a first axis, and each pixel in a group being positioned relative to a respective discrete light source, the pixel intensity data values each for controlling light transmission characteristics of a respective pixel to generate the image;

applying intensity correction values to at least some pixel data values within each group to compensate for an angular size of view, of the respective light source, via said pixels, in a second axis of the display panel, wherein the second axis is transverse to the first axis, by controlling an amount of light from the respective discrete light source passing through each pixel according to a three dimensional image to be displayed; and

using the corrected pixel data values to drive pixels of the display panel to generate said image.

23. (Cancelled).

24. (Original) The method of claim 22 in which the intensity correction values are obtained from a look-up table containing correction values to be applied in respect of each pixel within a group.

25. (Previously Presented) The method of claim 22 in which the intensity correction values are selected so as to substantially normalise an intensity displayed by a group of pixels to be independent of viewing angle.

26. (Original) The method of claim 22 in which the intensity correction values are used to adjust a pixel drive voltage and/or current applied to the display panel.

27. (Original) The method of claim 22 in which the intensity correction values are determined according to a function of a linear viewing angle dimension of each pixel in a group.

28. (Original) The method of claim 22 in which the intensity correction values are determined according to a function of an areal viewing angle dimension of each pixel in a group.

29. (Original) The method of claim 22 in which the intensity correction values are determined according to a function of the angle subtended by a linear dimension of a pixel relative to its respective discrete light source.

30. (Previously Presented) The method of claim 22 in which the intensity correction values are determined according to a function of the angle subtended by an areal dimension of a pixel relative to its respective discrete light source.

31. (Original) The method of claim 22 in which the intensity correction values are selected to modulate the optical transmissivity of each pixel according to the function:

$$\arctan\{[(N + 0.5)p_0 + 0.5 * w] / h\} - \arctan\{[(N - 0.5)p_0 - 0.5 * w] / h\}$$
$$\arctan\{[(n + 0.5)p_0 + 0.5 * w] / h\} - \arctan\{[(n - 0.5)p_0 - 0.5 * w] / h\}$$

where the group of pixels comprises (2N + 1) pixels, n is the pixel position from the centre of the group of (2N + 1) pixels, p_0 is the pixel width, w is the width of the discrete light source, and h is the orthogonal separation of the light source to the plane of the group of pixels.

32. (Currently Amended) The method of claim 22 further including the step of configuring inherent optical characteristics of the display panel such that viewing angle dependence is reduced or substantially minimised relative to the first axis which is a y-axis ~~and applying said intensity correction values so as to reduce or substantially minimise viewing angle dependence relative to an axis that is transverse to the y-axis~~.

33. (Currently Amended) The method of claim 32 in which the intensity correction values are applied to reduce or substantially minimise viewing angle dependence relative to [[an]] the second axis which is a x-axis, wherein the second axis [[that]] is orthogonal to the y-axis ~~(i.e. the x-axis)~~.

34. (Original) The method of claim 33 in which the x-axis is the horizontal axis when the display panel is in normal use, and the y-axis is the vertical axis when the display panel is in normal use.

35. (Currently Amended) A computer program product, comprising a storage medium having thereon computer program code ~~adapted, when said computer program code is loaded onto a computer, to make the computer execute~~ that is executable when loaded onto a computer, comprising:

instructing the computer to execute the method of claim 22.

36. (Cancelled)